

- 1 What is claimed is:
- 2 1. A multi-chip package combining wire-bonding and flip-chip configuration
- 3 comprising:
- 4 a substrate having an upper surface and a lower surface, the substrate having a
- 5 plurality of contact pads on the upper surface;
- 6 at least a wire-bonding chip attached to the upper surface of the substrate and
- 7 electrically connected to the substrate through a plurality of bonding wires;
- 8 a molding compound formed on the upper surface of the substrate, and sealing the
- 9 wire-bonding chip and the bonding wires, wherein the molding compound has at least
- 10 a recession to expose the contact pads; and
- 11 at least a flip-chip type electrical device having a plurality of bumps, wherein the
- 12 flip-chip type electrical device is mounted on the upper surface of the substrate
- 13 through the connection of the bumps to the contact pads.
- 14 2. The package of claim 1, wherein a distance from the recession of the molding
- 15 compound to the contact pads is more than 1.0 mm.
- 16 3. The package of claim 1, wherein the recession is in a shape of an arc.
- 17 4. The package of claim 1, wherein the recession is in a shape of a quarter-circle.
- 18 5. The package of claim 1, wherein the molding compound further has an extension
- 19 from the recession.
- 20 6. The package of claim 5, wherein the molding compound is in a L-shape or U-shape to
- 21 partially expose the upper surface of the substrate for mounting the flip-chip type
- 22 electrical device.
- 23 7. The package of claim 1, wherein the flip-chip type electrical device is a BGA
- 24 package, a chip scale package or a flip chip.
- 25 8. The package of claim 1, further comprising a plurality of solder balls on the lower
- 26 surface of the substrate.
- 27 9. The package of claim 1, further comprising a heat sink attached to the molding

1 compound and the flip-chip type electrical device.

2 10. The package of claim 1, wherein the molding compound has at least a step on the
3 exposed surface of the molding compound.

4 11. The package of claim 1, wherein the molding compound has at least an indentation
5 on the exposed surface of the molding compound.

6 12. The package of claim 1, wherein the upper surface of the substrate includes a flip
7 chip region exposed to the molding compound and a molding region, the substrate has a
8 molding gate metal layer extending to the molding region opposing to the recession.

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